NASA Aeronautics Airspace Systems Program Technical Interchange Meeting—March 28–31, 2011 • San Diego, CA

Monday

6:00—8:00 pm Registration & No Host Social—*Pavilion and Terrace, 4th Floor*

Tuesday

7:00—8:00 am Registration—*Foyer*
7:00—8:00 am Continental Breakfast—*Foyer*
8:00—10:00 am Welcome, Introductions, Overview Briefings—*California Ballrooms A, B, and C*

TRACK 1: Achieving Safe & Optimal Surface Operations California Ballroom A		TRACK 2: Separation in Trajectory Based Operations California Ballroom B		TRACK 3: Interoperability Technologies California Ballroom C	
10:00–10:30 am	Break	10:00–10:30 am	Break	10:00–10:30 am	Break
10:30–10:40 am	Track Overview	10:30–10:40 am	Track Overview	10:30–10:40 am	Track Overview
10:40–11:10 am	Benefits and Guidelines for the Development of Airport Surface Operations Planning Tools—How to Get the Best Next Generation Air Transportation System Bang for the Buck!	10:40–11:10 am	Concept for Improved Convective Weather Avoidance in Center Airspace	10:40–11:10 am	Development and Validation of a Predictive Model of Situation Awareness for Tower Controllers
11:10–11:40 am	Perforamance Evaluation of the Spot And Runway Departure Advisor (SARDA), a Tower Controller Decision Support Tool	11:10–11:40 am	Controller and Pilot Evaluation of a Datalink-Enabled Trajectory-Based Operations Concept	11:10–11:40 am	Capturing the Human Element in Simulation Models for Realistic Assessment of New Concepts and Technologies
11:40 am–12:10 pm	An Initial Investigation of the Impact of Operator-Automation Goal Divergence in the Tower	11:40 am–12:10 pm	Communication Issues for Near-term Implementation of Trajectory-Based Operations: Lessons from an Air-Ground Human-in-the-Loop Simulation Using Future Air Navigation System, Aircraft Communication Addressing and Reporting System, and Voice	11:40 am–12:10 pm	Adaptive Automation for the Next Generation Air Transportation System
12:10–1:30 pm	Lunch	12:10–1:30 pm	Lunch	12:10–1:30 pm	Lunch
1:30–2:00 pm	Collision Avoidance for Airport Traffic Simulation Evaluation	1:30–2:00 pm	Relative Significance of Trajectory Prediction Errors on the Advanced Airspace Concept Autoresolver	1:30–2:00 pm	The Use of Low Fidelity Simulation to Rapidly and Inexpensively Investigate Next Generation Air Transportation System Solutions
2:00–2:30 pm	Modeling Performance Limits for Terminal Area Conflict Detection and Resolution in Alternative Next Generation Air Transportation System Environments	2:00–2:30 pm	Controller-in-the-Loop Evaluation of Automated High Density Air Traffic Controller Operations with Weather and Time Constraints	2:00–2:30 pm	Validation Methodology and Demonstration
2:30–3:00 pm	Integration of Automation Technologies to Enhance Safety and Efficiency and Current-Day and Next Generation Air Transportation System Surface Operations	2:30–3:00 pm	The Concept of Airborne Self-Separation: Integrating Aircraft and Air Traffic Management through Air/Ground Function Allocation	2:30–3:00 pm	Common Behavior Models/Interoperability
3:00–3:30 pm	Break	3:00–3:30 pm	Break	3:00–3:30 pm	Break
3:30–4:00 pm	Surface Trajectory Prediction and Trajectory Conformance Monitoring	3:30–4:00 pm	Traffic Aware Strategic User Requests: Integrating Airborne Conflict Tools into Near-term Operations	3:30–4:00 pm	Sensitivity of Efficient Descent Advisor Performance to Trajectory Prediction Errors—A Simulation based Study
4:00–4:30 pm	Flight Deck Surface Trajectory-Based Operations: Results of Piloted Simulations and Implications for Concepts of Operation	4:00–4:30 pm	Integration of Weather Avoidance and Traffic Separation	4:00–4:30 pm	Efficient Descent Advisor Regional Jet Flight Trials—Trajectory Prediction Accuracy
4:30–5:00 pm	Closing Presentation & Discussion	4:30–5:00 pm	Integration of Separation Assurance and Airborne Surveillance Technology: Assessing the Effects of Automatic Dependent Surveillance-Broadcast Range and Interference on Airborne Separation	4:30–5:00 pm	Future of Interoperability Research
5:00–6:00 pm	Break	5:00–6:00 pm	Break	5:00–6:00 pm	Break
6:00–9:00	**Demonstrations, Poster Session, and No Host Social—*Santa Fe and Plaza rooms and 2nd Floor Foyer***				

Wednesday

TRACK 4: Balancing Demand, Capacity, Performance & the Environment California Ballroom A		TRACK 2: Separation in Trajectory Based Operations–continued California Ballroom B		TRACK 6: Optimizing Capacity and Efficiency in Terminal Airspace California Ballroom C	
8:00–8:30 am	Overview of Dynamic Airspace Configuration	8:00–8:30 am	Criteria-Based Implicit Coordination for Separation Assurance	8:00–8:30 am	Super Density Operations Overview
8:30–9:00 am	Comparing Airspace Design Methods	8:30–9:00 am	A Modular Approach to Strategic Conflict Detection and Resolution	8:30–9:00 am	Assessment of Fast-time Wake Vortex Prediction Models
9:00–9:30 am	Benefit of Regional Airspace Reconfiguration in the Presence of Convective Weather	9:00–9:30 am	Safety Analysis and Risk Assessment of Next Generation Air Transportation System Airspace Concepts	9:00–9:30 am	Assessment of Wake Vortex Measurements Using a Lidar Simulator
9:30–10:00 am	Flexible Airspace Management	9:30–10:00 am	Separation Assurance Track Wrap-Up	9:30–10:00 am	Integrated Pilot and Controller Procedures: Aircraft Pairing for Simultaneous Approaches to Closely Spaced Parallel Runways
10:00–10:30 am	Break	10:00–10:30 am	Break	10:00–10:30 am	Break
		TRACK 5: System Performance California Ballroom B			
10:30–11:00 am	Generic Airspace	10:30–10:45 am	Introduction to Systems and Portfolio Analysis	10:30–11:00 am	Terminal Tactical Separation Assurance Flight Environment
11:00–11:30 am	The Sector Combining Advisory Algorithm	10:45–11:10 am	Assessing Benefits of Advanced Terminal Area Routing Concepts using Merging and Spacing Techniques in a National Airspace System-Wide Simulation	11:00–11:30 am	Interval Management Concept of Operations
11:30 am–12:00 pm	Wrap-Up and Open Discussion	11:10–11:35 am	A Fuel & Weight Estimation Model for Airspace Concept Evaluation System	11:30 am–12:00 pm	Quantifying the Performance of Airborne Precision Spacing under Realistic Operating Conditions
		11:35 am–12:00 pm	Modeling Systemic Phenomena in the NAS		
12:00–1:30 pm	Lunch	12:00–1:30 pm	Lunch	12:00–1:30 pm	Lunch
1:30–2:00 pm	Traffic Flow Management Overview and Challenges	1:30–2:00 pm	Analysis of Next Generation Air Transportation System Sensitivity to Gaming	1:30–2:00 pm	Evaluation of Controller Tools to Support "Green" Schedule-Based Terminal-Area Operations
2:00–2:30 pm	Operational Evaluation of Weather Forecast Products for Strategic Air Traffic Management—Highlights from the Summer 2010 Consolidated Storm Prediction for Aviation Evaluation	2:00–2:30 pm	Dynamic Metroplex Airspace	2:00–2:30 pm	Development and Testing of an Integrated Terminal Area Precision Scheduling and Spacing System
2:30–3:00 pm	Field Evaluation of a Ground Delay Program Selection Model at San Francisco Airport	2:30–3:00 pm	The Multiplexer: An Optimization-Based Tool for the Scheduling of Metroplex Operations	2:30–3:00 pm	Operational Challenges in Implementing a Dynamic Routing Concept for Managing Weather-Impacted Terminal Arrivals
3:00–3:30 pm	Break	3:00–3:30 pm	Break	3:00–3:30 pm	Break
3:30–4:00 pm	Human-in-the-Loop Evaluations of the Credits Concept within the System Enhancements for Versatile Electronic Negotiation Framework	3:30–4:00 pm	Performance Assessment of Advanced Airspace Concept in the presence of Weather	3:30–4:00 pm	Plans and Progress toward System Oriented Runway Management
4:00–4:30 pm	Modeling and Simulating the Environmental Impact of Air Traffic Operations	4:00–4:30 pm	Benefits Assessment of the Interaction Between Traffic Flow Management Delay and Airspace Partitions in the Presence of Weather	4:00–4:30 pm	Tactical Runway Configuration Management
4:30–5:00 pm	Traffic Flow Management Wrap-Up	4:30–5:00 pm	Wrap-Up and Open Discussion	4:30–5:00 pm	Super Density Operations Wrap-Up
6:00–9:00	**Demonstrations, Poster Session—*Santa Fe and Plaza rooms and 2nd Floor Foyer***				

Thursday

TRACK 7: Maturing Integrated Technologies California Ballroom A		TRACK 8: Maturing Integrated Technologies California Ballroom B		TRACK 9: Maturing Integrated Technologies California Ballroom C	
8:00–8:30 am	Technology Transition of the Efficient Descent Advisor	8:00–8:30 am	Integration, Evaluation and Transition of a Precision Departure Release Capability	8:00–8:30 am	Functional Allocation for Separation Assurance
8:30–9:00 am	Multi-Sector Planning Operations in Mixed Equipage Airspace	8:30–9:00 am	Maturing Airborne Precision Spacing Through Field Testing	8:30–9:00 am	Automatic Dependent Surveillance-Broadcast In-Trail Procedures
9:00–9:30 am	Break	9:00–9:30 am	Break	9:00–9:30 am	Break
9:30–11:30 am	**Panel Discussion and Wrap-Up**				
11:30 am	**Adjourn—*California Ballrooms A, B, and C***				